

§ 139.305 Paved areas.

(a) Each certificate holder shall maintain, and promptly repair the pavement of, each runway, taxiway, loading ramp, and parking area on the airport which is available for air carrier use as follows:

(1) The pavement edges shall not exceed 3 inches difference in elevation between abutting pavement sections and between full strength pavement and abutting shoulders.

(2) The pavement shall have no hole exceeding 3 inches in depth nor any hole the slope of which from any point in the hole to the nearest point at the lip of the hole is 45 degrees or greater as measured from the pavement surface plane, unless, in either case, the entire area of the hole can be covered by a 5-inch diameter circle.

(3) The pavement shall be free of cracks and surface variations which could impair directional control of air carrier aircraft.

(4) Except as provided in paragraph (b) of this section, mud, dirt, sand, loose aggregate, debris, foreign objects, rubber deposits, and other contaminants shall be removed promptly and as completely as practicable.

(5) Except as provided in paragraph (b) of this section, any chemical solvent that is used to clean any pavement area shall be removed as soon as possible, consistent with the instructions of the manufacturer of the solvent.

(6) The pavement shall be sufficiently drained and free of depressions to prevent ponding that obscures markings or impairs safe aircraft operations.

(b) Paragraphs (a)(4) and (a)(5) of this section do not apply to snow and ice accumulations and their control, including the associated use of materials such as sand and deicing solutions.

(c) FAA Advisory Circulars in the 150 series contain standards and procedures for the maintenance and configuration of paved areas which are acceptable to the Administrator.

§ 139.307 Unpaved areas.

(a) Each certificate holder shall maintain and promptly repair the surface of each gravel, turf, or other unpaved runway, taxiway, or loading ramp and parking area on the airport

which is available for air carrier use as follows:

(1) No slope from the edge of the full-strength surfaces downward to the existing terrain shall be steeper than 2:1.

(2) The full-strength surfaces shall have adequate crown or grade to assure sufficient drainage to prevent ponding.

(3) The full-strength surfaces shall be adequately compacted and sufficiently stable to prevent rutting by aircraft, or the loosening or buildup of surface material which could impair directional control of aircraft or drainage.

(4) The full-strength surfaces must have no holes or depressions which exceed 3 inches in depth and are of a breadth capable of impairing directional control or causing damage to an aircraft.

(5) Debris and foreign objects shall be promptly removed from the surface.

(b) Standards and procedures for the maintenance and configuration of unpaved full-strength surfaces shall be included in the airport certification manual or the airport certification specifications, as appropriate, for compliance with this section.

§ 139.309 Safety areas.

(a) To the extent practicable, each certificate holder shall provide and maintain for each runway and taxiway which is available for air carrier use—

(1) If the runway or taxiway had a safety area on December 31, 1987, and if no reconstruction or significant expansion of the runway or taxiway was begun on or after January 1, 1988, a safety area of at least the dimensions that existed on December 31, 1987; or

(2) If construction, reconstruction, or significant expansion of the runway or taxiway began on or after January 1, 1988, a safety area which conforms to the dimensions acceptable to the Administrator at the time construction, reconstruction, or expansion began.

(b) Each certificate holder shall maintain its safety areas as follows:

(1) Each safety area shall be cleared and graded, and have no potentially hazardous ruts, humps, depressions, or other surface variations.

(2) Each safety area shall be drained by grading or storm sewers to prevent water accumulation.

(3) Each safety area shall be capable under dry conditions of supporting snow removal equipment, and aircraft rescue and firefighting equipment, and supporting the occasional passage of aircraft without causing major damage to the aircraft.

(4) No object may be located in any safety area, except for objects that need to be located in a safety area because of their function. These objects shall be constructed, to the extent practical, on frangibly mounted structures of the lowest practical height with the frangible point no higher than 3 inches above grade.

(c) FAA Advisory Circulars in the 150 series contain standards and procedures for the configuration and maintenance of safety areas acceptable to the Administrator.

§ 139.311 Marking and lighting.

(a) Each certificate holder shall provide and maintain at least the following marking systems for air carrier operations on the airport:

(1) Runway markings meeting the specifications for the approach with the lowest minimums authorized for each runway.

(2) Taxiway centerline and edge markings.

(3) Signs identifying taxiing routes on the movement area.

(4) Runway holding position markings and signs.

(5) ILS critical area markings and signs.

(b) Each certificate holder shall provide and maintain, when the airport is open during hours of darkness or during conditions below VFR minimums, at least the following lighting systems for air carrier operations on the airport:

(1) Runway lighting meeting the specifications for the approach with the lowest minimums authorized for each runway.

(2) One of the following taxiway lighting systems:

- (i) Centerline lights.
 - (ii) Centerline reflectors.
 - (iii) Edge lights.
 - (iv) Edge reflectors.
- (3) An airport beacon.

(4) Approach lighting meeting the specifications for the approach with

the lowest minimums authorized for each runway, unless otherwise provided and maintained by the FAA or another agency.

(5) Obstruction marking and lighting, as appropriate, on each object within its authority which constitutes an obstruction under part 77 of this chapter. However, this lighting and marking is not required if it is determined to be unnecessary by an FAA aeronautical study.

(c) Each certificate holder shall properly maintain each marking or lighting system installed on the airport which is owned by the certificate holder. As used in this section, to “properly maintain” includes: To clean, replace, or repair any faded, missing, or nonfunctional item of lighting; to keep each item unobscured and clearly visible; and to ensure that each item provides an accurate reference to the user.

(d) Each certificate holder shall ensure that all lighting on the airport, including that for aprons, vehicle parking areas, roadways, fuel storage areas, and buildings, is adequately adjusted or shielded to prevent interference with air traffic control and aircraft operations.

(e) FAA Advisory Circulars in the 150 series contain standards and procedures for equipment, material, installation, and maintenance of light systems and marking listed in this section which are acceptable to the Administrator.

(f) Notwithstanding paragraph (a) of this section, a certificate holder is not required to provide the identified signs in paragraph (a)(3) of this section until January 1, 1995. Each certificate holder shall maintain each marking system that meets paragraph (a)(3) of this section.

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§ 139.313 Snow and ice control.

(a) Each certificate holder whose airport is located where snow and icing conditions regularly occur shall prepare, maintain, and carry out a snow and ice control plan.